

Wendy,

I concur with the Diego's proposed approach to calculate future traffic growth and distribution of traffic volumes as described by Diego Arguea in this email thread. Mr. Arguea and I discussed his approach last week and then again today. The Fairway Estates PUD trip assignment will parallel that of the Rhododendron – 35<sup>th</sup> PUD. The Fawn Ridge development, being further north will split its trips, between Rhododendron and Heceta Beach Road.

He also led me through the Harmelink methodology to determine the need for installing a left-turn lane. I understand that this analysis method is used by some jurisdictions. The Harmelink method does not indicate the need of a left-turn lane for southbound Rhododendron to eastbound 35<sup>th</sup>.

There are other methods in use. The American Association of State and Highway Officials (AASHTO) *Policy on Geometric Design of Streets and Highways*, Seventh Edition, 2018, commonly known as the *Green Book*, has a different approach. It begins with the assumption that, in general, left-turn lanes have value. On page 9-105, the *Green Book* states:

“In designing an intersection, left-turning traffic should be removed from the through lanes, whenever practical. Therefore, provisions for left turns (i.e., left-turn lanes) have widespread application. Ideally, left-turn lanes should be provided at driveways and street intersections along major arterial and collector roads wherever left turns are permitted.”

The Green Book has numerical standards for the installation of left-turn pockets, which are met by the intersection of Rhododendron and 35<sup>th</sup>.

There is no universal standard, my recommendation would be the AASHTO standard; however, others may disagree. While City Traffic engineer in Eugene, we began placing two-way left-turn lanes on our collector and higher level roads. The result has been a long term safety benefit.

Please let me know if you have any questions.

Jim

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Exhibit K1



Fri 9/4/2020 4:12 PM

JAMES HANKS <jimhanks@jrhweb.com>

RE: Rhododendron & 35th PUD - Information for Public Record

to: Roxanne Johnston

cc: Wendy Farley-Campbell

I have reviewed the two documents attached to the September 4, 2020, 2:08 PM email from Mercedes Serra attached to this message stream. The methodology described in the September 4, 2020 Kittelson Traffic Impact Study – “Planning Commission Response to Testimony” to adjust traffic volumes for 30<sup>th</sup> hour peak conditions, and in-process traffic from Fairway Estates and Fawn Ridge follows the process that Diego Arguea and I jointly developed for the Rhododendron – 35<sup>th</sup> PUD. I do not have the time to fully check the math; however, based on my experience in conducting traffic studies, I believe the traffic from full development of the PUD will meet the mobility standards set by the City.

I continue to have reservations regarding the lack of providing for a left-turn lane for the southbound to westbound movement. I understand that the Harmelink methodology in Kittelson Study is used by some jurisdictions. Nevertheless, AASHTO Guidelines are more widely recognized, even though, following those guidelines will result in more locations being designated for left-turn lane installation.

Jim Hanks

**From:** Roxanne Johnston <[Roxanne.Johnston@ci.florence.or.us](mailto:Roxanne.Johnston@ci.florence.or.us)>

**Sent:** Friday, September 04, 2020 3:02 PM

**To:** JAMES HANKS <[jimhanks@jrhweb.com](mailto:jimhanks@jrhweb.com)>

**Subject:** FW: Rhododendron & 35th PUD - Information for Public Record

Hello Jim,

Is what attached what was talked about between you and Diego?

Thank you,

R